

REMARKS

Summary of the Office Action

In the Office Action, claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,327,248 to *Miller et al.* (“*Miller*”) in view of U.S. Patent No. 6,476,863 to *Silverbrook*.

Summary of the Response to the Office Action

Applicants respectfully submit that neither *Miller* nor *Silverbrook* teaches or suggests the present invention. Accordingly, claims 1-6 are pending for further consideration.

All Claims are Allowable

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Miller* in view of *Silverbrook*. This rejection is respectfully traversed in view of the following arguments.

Applicants respectfully submit that independent claim 1 includes features not found or taught in either *Miller* or *Silverbrook*. Specifically, independent claim 1 recites a combination of features including at least “displaying a plurality of images arranged in a two-dimensional array on a display screen wherein images arranged at least in a one-dimensional direction in succession among said plurality of images are images processed states of which are gradually changed in at least one attribute of image processing . . . performing image verification based on the thus displayed plurality of images.” Applicants respectfully submit that at least these features are not taught or suggested by either *Miller* or *Silverbrook*.

Miller discloses an image compression system using a typical image compression scheme, a pointer array is provided to point to each of the many Minimum Coded Units (MCU)

in a compressed image file. From all the blocks of an image, a subset of the blocks is selected as a virtual image. The virtual image is edited, and each edited block is compressed into an edited block. The edited block is compressed into an edited MCU and placed in an edited block region, and the pointer to the original MCU is changed to point to the new MCU. In this way, the pointer array can be modified to perform an Undo operation. An edge table is provided to hold values where each value, when combined with the differential value for a block on the edge of the virtual image, provides an absolute value for the block without reference to blocks beyond the edge of the virtual image. The entries in the edge table are determined from the compressed MCUs without the blocks being fully decompressed. More than one edge table can be provided. In an image editor, a virtual image is decompressed from a compressed image, the virtual image is processed, and recompressed. The recompressed, edited blocks are then placed in an edited block memory. In other words, *Miller* provides a means for editing portions of compressed images without decompressing the entire image. See the Abstract of *Miller*.

Silverbrook discloses a device which includes a card reading machine and a printer, attached to a CCD video camera. A card, the size of a credit card, is inserted into the reading machine. On one face of the card is found a visual representation of an effect the card will have on a sensed video image. The camera is capable of transforming the sensed video image substantially in accordance with the transformation of a standard image comprising the visual representation of the card and the transformation of the sensed video image onto a printed output of the printer. See the Abstract and col. 1, lines 15-21 and 55-60 of *Silverbrook*. On the other side of the card is an array of black dots called borderlines and clockmarks which make-up a

scripted image processing language called "VARK". In other words, *Silverbrook* discloses a method and apparatus for adding effects to sensed video images and printing them onto paper.

To establish a *prima facie* case of obviousness, three basic criteria must be met (see MPEP §§ 2142-2143). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art references must teach or suggest all the claim limitations.

First, the Office Action does not establish a *prima facie* case of obviousness at least because it has not identified any suggestion or motivation to combine the cited reference teachings. As previously mentioned, *Miller* discloses manipulating compressed electronic images (e.g., jpeg images) without having to decompress them fully thus saving time, memory, and bandwidth in a computer environment, while *Silverbrook* discloses adding special effects to sensed video images. As such, the suggestion or motivation to combine is not provided by either the references themselves or by knowledge generally available to one of ordinary skill in the art. Therefore, it is respectfully submitted that the statement in the Office Action is not sufficient by itself to meet the first prong of *prima facie* obviousness. In fact, the MPEP § 2143.01 states that "the level of skill in the art cannot be relied upon to provide the suggestion to combine references." *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999).

Second, there must be a reasonable expectation of success. Since none of the cited references teach or suggest the present invention, one of ordinary skill in the art could not

reasonably contemplate the invention as recited in independent claim 1, from the teachings of the applied references. “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).” See MPEP § 2143.01. The Office Action does not provide any citation to the references of record that shows the desirability of combining *Miller* and *Silverbrook*. The mere assertion that *Miller* and *Silverbrook* could be combined is not sufficient by itself to establish *prima facie* obviousness. Therefore, it is respectfully submitted that the Office Action has not met the second prong of *prima facie* obviousness.

Third, the Office Action has not established a *prima facie* case of obviousness at least because neither *Miller* nor *Silverbrook*, whether alone or in combination, teaches or suggests all the recited features of independent claim 1. Namely, neither *Miller* nor *Silverbrook* teaches or suggests at least “displaying a plurality of images arranged in a two-dimensional array on a display screen wherein images arranged at least in a one-dimensional direction in succession among said plurality of images are images processed states of which are gradually changed in at least one attribute of image processing . . . performing image verification based on the thus displayed plurality of images,” features recited in claim 1.

Contrary to the Office Action, *Miller* does not teach or suggest the features of a “display screen,” as recited in claim 1. In *Miller*, the two dimensional array 34 is not a visual array reproduced from an image printed on photographic film, but rather a decoded virtual image 44 (of electronic bits) that is re-coded and stored in a display memory 36. Thus, *Miller* does not

teach a display screen.

The Office Action states that “Miller discloses a photographic print processing method” as described at col. 4, lines 60 to col. 5, line 2. On the contrary, neither *Miller* nor *Silverbrook* teaches or suggests a photographic print processing method. *Miller* is concerned about manipulating compressed electronic images (e.g., jpeg images) without having to decompress them fully, thus saving time, memory, and bandwidth in a computer environment. See col. 1, lines 35-50 of *Miller*. *Silverbrook* is concerned about adding special effects to sensed video images. See the Abstract and col. 1, lines 15-21 and 55-60 of *Silverbrook*. *Silverbrook* does discuss a print head 44 that prints the modified sensed video image, but such disclosure does not begin to approach the present invention as claimed.

Miller discloses a subset of blocks selected as a virtual image from all the blocks of an image and the virtual image is displayed on a display screen. However, what disclosed therein is merely a method and system for enabling the pixel level manipulation of images that remain in compressed form in the image compression system using a typical image compression scheme. That is, although *Miller* discloses the compression of images, reading and writing image data from/to memory and editing, it does not disclose “photographic print processing method” or “photographic print processing apparatus.” Also, the virtual image which is the subset of blocks in an image disclosed in *Miller* is only one block among all the blocks in an image and not an image among the images with different processed states which are gradually changed in at least one attribute of image processing. Therefore, *Miller* does not disclose “displaying a plurality of images arranged in a two-dimensional array on a display screen wherein images arranged at least

in a one-dimensional direction in succession among the plurality of images are images processed states of which are gradually changed.”

Furthermore, in the disclosure of column 14, lines 45-52 of *Silverbrook*, the color display 5 is used for verification for printing. However, the screen of color display 5 does not display a plurality of images arranged in a two-dimensional array and/or display the images whose processed states are gradually changed arranged at least in one-dimensional direction in succession.

The Office Actions states that *Silverbrook* is relied upon for “performing image verification based on the thus displayed plurality of images,” as recited in claim 1. In *Silverbrook* the sensed video image to be printed is displayed on a view finder and may be “verified” as the image to be printed, but the image is not a plurality of images as recited. In our last response we successfully argued that *Silverbrook* describes a plastic Artcard that stores the VARK language (a black dot array) on it so that image effects may be applied to a sensed video image. See col. 12, lines 5-65 of *Silverbrook*. As just mentioned, *Miller* does not display “a plurality of images arranged in a two-dimensional array on a display screen,” as recited in claim 1. Applicants respectfully submit that the Office Action is improperly combining the applied references to try to fit the claims and the result is performing image verification on a non-existent plurality of images displayed on a non-existent display screen.

As pointed out in M.P.E.P. § 2143.03, “[t]o establish prima facie obviousness of a claimed invention, all the claimed limitations must be taught or suggested by the prior art”. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). As such, Applicants respectfully assert that

the third prong of *prima facie* obviousness has not been met. Therefore, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) should be withdrawn because *Miller* and *Silverbrook* do not teach or suggest each and every feature of independent claim 1.

Additionally, it is further respectfully submitted that dependent claim 2 is also allowable insofar as it recites the patentable combinations of features recited in independent claim 1, as well as reciting additional features that further distinguish over the applied art. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

Applicants submit that claim 3 includes features not taught or suggested in *Miller* or *Silverbrook*. Specifically, claim 3 recites a combination of features including at least “a device for reading an image recorded on photographic film . . . a display device for displaying the thus read image . . . image processed states . . . gradually changed in at least one attribute of image processing . . . are displayed in succession on a display screen of the display device.” Applicants respectfully submit that at least these features are not taught or suggested by *Miller*.

Contrary to the Office Action, *Miller* does not teach or suggest “a device for reading an image recorded on photographic film” or “a display device,” as recited in claim 3. *Miller* does not teach or suggest anything remotely related to a device which can read photographic film. Further, *Miller* does not teach or suggest a display device as suggested in the Office Action. In *Miller*, the two dimensional array 34 is not a visual array reproduced from an image on photographic film, but rather a decoded virtual image 44 (of electronic bits) that is re-coded and stored in a display memory 36.

As previously mentioned, *Silverbrook* does not process images that are gradually changed

in at least one attribute and arranged at least in a one-dimensional direction in succession on a display device. Nowhere in *Silverbrook* are such processed images varied, arranged, displayed, or even mentioned. Since *Miller* does not teach or suggest “a device for reading an image recorded on photographic film” or “a display device” or display “image processed states,” performing image verification on a non-existent images displayed on a non-existent display device is moot. Applicants respectfully submit that the Office Action is improperly combining the applied references to try to fit the claims.

For at least the reasons above-mentioned, Applicants respectfully assert that the rejections under § 103(a) should be withdrawn because *Miller* and *Silverbrook* do not teach or suggest each feature of independent claim 3. Additionally, it is further respectfully submitted that dependent claim 4 is also allowable insofar as it recites the patentable combinations of features recited in independent claim 3, as well as reciting additional features that further distinguish it over the applied art. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

Similarly, Applicants submit that independent claims 5 and 6 include features not taught or suggested in either *Miller* or *Silverbrook*. Specifically, “displaying a plurality of images arranged in a two-dimensional array on a display screen wherein said plurality of images are processed in one frame in different states to each other and arranged at least in a one-dimensional direction in succession are images processed states which are gradually changed in at least one attribute of image processing” and “wherein a plurality of images which are processed said read image in one frame in different states to each other are arranged in a two-dimensional array on a

display screen of the display device, and wherein images processed states of which are gradually changed in at least one attribute of image processing and which are arranged at least in a one-dimensional direction are displayed in succession on the display screen of the display device,” as recited in claims 5 and 6, respectively.

Contrary to the Office Action, neither *Miller* nor *Silverbrook* discloses the features recited in claims 5 and 6 above. The Office Action states that the above-mentioned features in claims 5 and 6 are found in *Miller* and *Silverbrook*. The Office Action also states that the arguments for claims 5 and 6 “are addressed above,” referring to its arguments for claims 1 and 3. Applicants respectfully submit that the Office Action’s arguments for claims 1 and 3 are likewise unconvincing for claims 5 and 6. Rather, it is the Applicants’ reasoned arguments for claims 1 and 3 that should convince the Examiner that claims 5 and 6 are allowable as written.

Accordingly, approval of independent claims 5 and 6 is respectfully requested.


CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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